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THE

# READY MULTIPLIER.

By CHARLES W. GREENE,
Of Jamaica Plain, Massachusetts.

Second Edition.

BOSTON:
GOULD, KENDALL & LINCOLN.
1838.

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# ADVERTISEMENT.

About twelve years ago, the Compiler of the following Tables was in the practice of assigning to his pupils the task of committing to memory a Multiplication Table extending to 20 times 20. He soon discovered that this was an irksome labor, and he was induced to seek some mode of assisting them in this exercise; and the construction of the first of the following Tables accomplished his object. A few minutes' study enabled boys readily to answer questions between 10 and 20, which

they had failed, after hours of labor, to learn by the ancient process.

Further attention to the subject led him to extend the Tables to numbers between 20 and 30, and, in the same manner, between 30 and 40, 40 and 50, 50 and 60, 60 and 70, 70 and 80, 80 and 90, and 90 and 100.

As the process is simple, the Compiler presumed it had occurred to others besides himself; but, having received a large number of scholars from various parts of the United States, none of whom had ever heard of it, he has reason to believe, that no similar Tables have been constructed; and, having tested their utility by several years' experience, he cannot doubt, that the publication of them will abridge the labor of the instructer, and materially diminish

the fatigue and disgust of the pupils in Arithmetic. In his own case, they have afforded great relief, and he has found no exercise more interesting to his students than the mental multiplication now presented to the public.

JAMAICA PLAIN, 1833.

# NOTICE.

To multiply numbers not included between the limits of each Table, the usual mode must be adopted; but a familiarity with the operations described in this system naturally leads to the discovery of additional methods of calculation; as in the following instance:—A youth, inquiring how much are 35 times 25, and not finding an answer in the Tables, suggested himself, that he should first multiply 25 by 25, which would produce 625, to which he would add the remaining ten 25's, which would give

875; and, in the case of 48 times 26, w
are 1248, he would take 24 times 26, w
are 624, and double the product, which, a
is the half of 48, would give the answer, 1

# EXPLANATION.

THE numbers 12 multiplied by 12 are selected as an example, because they are familiar to all, and because they have been so often hailed with delight by youthful learners, as the termination of their labors in the ancient Table.

The Instructer commences by placing on a slate, $12 \times 12 = 144$. He takes the first 12 and adds to it the last figure of the second 12, which is 2, and says, 12 and 2 are 14. To this 14 he annexes a cipher, which makes 140; he then multiplies together the last figure of each 12, which are $2 \times 2 = 4$, and adds this product 4 to 140, which produces 144.

He may then take $19 \times 11 = 209$, and say—

19 and 1 are 20, annex a cipher to 20=200
Then multiply the 9 by 1,= 9

209

The Instructer will then cause the learner to perform other operations without the slate.

The following tables commence with 11 times 11, and not with 10, because, in the latter case, the usual mode of annexing a cipher cannot be rendered more simple.

## EXPLANATION OF TABLE I.

| FROM THE TABLE. | EXPLANATION. | ANSWER. |
|---|---|---|
| $11\times12=132$ | $11+2=13$ annex $0=130$<br>$1\times2=2$ | $=132$ |
| $12\times14=168$ | $12+4=16$ annex $0=160$<br>$2\times4=8$ | $=168$ |
| $13\times15=195$ | $13+5=18$ annex $0=180$<br>$3\times5=15$ | $=195$ |
| $14\times16=224$ | $14+6=20$ annex $0=200$<br>$4\times6=24$ | $=224$ |
| $15\times18=270$ | $15+8=23$ annex $0=230$<br>$5\times8=40$ | $=270$ |
| $16\times12=192$ | $16+2=18$ annex $0=180$<br>$6\times2=12$ | $=192$ |
| $17\times17=289$ | $17+7=24$ annex $0=240$<br>$7\times7=49$ | $=289$ |
| $18\times19=342$ | $18+9=27$ annex $0=270$<br>$8\times9=72$ | $=342$ |
| $19\times13=247$ | $19+3=22$ annex $0=220$<br>$9\times3=27$ | $=247$ |

# TABLE I.

## From 11 times 11 to 19 times 19.

| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 121 | 132 | 143 | 154 | 165 | 176 | 187 | 198 | 209 |
| 12 | 132 | 144 | 156 | 168 | 180 | 192 | 204 | 216 | 228 |
| 13 | 143 | 156 | 169 | 182 | 195 | 208 | 221 | 234 | 247 |
| 14 | 154 | 168 | 182 | 196 | 210 | 224 | 238 | 252 | 266 |
| 15 | 165 | 180 | 195 | 210 | 225 | 240 | 255 | 270 | 285 |
| 16 | 176 | 192 | 208 | 224 | 240 | 256 | 272 | 288 | 304 |
| 17 | 187 | 204 | 221 | 238 | 255 | 272 | 289 | 306 | 323 |
| 18 | 198 | 216 | 234 | 252 | 270 | 288 | 306 | 324 | 342 |
| 19 | 209 | 228 | 247 | 266 | 285 | 304 | 323 | 342 | 361 |

## EXPLANATION OF TABLE II.

The method of calculation in this Table differs in one respect from that in Table I. After the whole of the first figures and the last of the second are added together, the sum must be *doubled*, and then the cipher must be annexed, and the learner will proceed as in the first Table.

EXAMPLE. 24×26=624. 24+6=30; double this sum, which will be 60, annex a cipher,=600, then 4×6=24, which, added to 600, makes 624.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| 21×29=609 | 21+9=30×2=60 annex 0=600<br>1×9= 9 | 609 |
| 22×24=528 | 22+4=26×2=52 annex 0=520<br>2×4= 8 | 528 |
| 23×23=529 | 23+3=26×2=52 annex 0=520<br>3×3= 9 | 529 |
| 24×21=504 | 24+1=25×2=50 annex 0=500<br>4×1= 4 | 504 |
| 25×28=700 | 25+8=33×2=66 annex 0=660<br>5×8= 40 | 700 |
| 26×22=572 | 26+2=28×2=56 annex 0=560<br>6×2= 12 | 572 |
| 27×25=675 | 27+5=32×2=64 annex 0=640<br>7×5= 35 | 675 |
| 28×26=728 | 28+6=34×2=68 annex 0=680<br>8×6= 48 | 728 |
| 29×27=783 | 29+7=36×2=72 annex 0=720<br>9×7= 63 | 783 |

# TABLE II.

## From 20 times 20 to 29 times 29.

| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 400 | 420 | 440 | 460 | 480 | 500 | 520 | 540 | 560 | 580 |
| 21 | 420 | 441 | 462 | 483 | 504 | 525 | 546 | 567 | 588 | 609 |
| 22 | 440 | 462 | 484 | 506 | 528 | 550 | 572 | 594 | 616 | 638 |
| 23 | 460 | 483 | 506 | 529 | 552 | 575 | 598 | 621 | 644 | 667 |
| 24 | 480 | 504 | 528 | 552 | 576 | 600 | 624 | 648 | 672 | 696 |
| 25 | 500 | 525 | 550 | 575 | 600 | 625 | 650 | 675 | 700 | 725 |
| 26 | 520 | 546 | 572 | 598 | 624 | 650 | 676 | 702 | 728 | 754 |
| 27 | 540 | 567 | 594 | 621 | 648 | 675 | 702 | 729 | 756 | 783 |
| 28 | 560 | 588 | 616 | 644 | 672 | 700 | 728 | 756 | 784 | 812 |
| 29 | 580 | 609 | 638 | 667 | 696 | 725 | 754 | 783 | 812 | 841 |

## EXPLANATION OF TABLE III.

The method of calculation in this Table also differs from that in the first, and also in the second. After the whole of the first figures and the last of the second are added together, their sum must be multiplied by 3, and then the cipher be annexed, and the learner will then proceed as in the first two Tables.

EXAMPLE. $34\times36=1224$. $34+6=40$, which multiply by 3, and you will have 120; annex the cipher and it will be 1200; then multiply $4\times6=24$, which, added to 1200, makes 1224.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| $31\times39=1209$ | $31+9=40\times3=120$ annex $0=1200$<br>$1\times9=9$ | 1209 |
| $32\times36=1152$ | $32+6=38\times3=114$ annex $0=1140$<br>$2\times6=12$ | 1152 |
| $33\times32=1056$ | $33+2=35\times3=105$ annex $0=1050$<br>$3\times2=6$ | 1056 |
| $34\times35=1190$ | $34+5=39\times3=117$ annex $0=1170$<br>$4\times5=20$ | 1190 |
| $35\times33=1155$ | $35+3=38\times3=114$ annex $0=1140$<br>$5\times3=15$ | 1155 |
| $36\times38=1368$ | $36+8=44\times3=132$ annex $0=1320$<br>$6\times8=48$ | 1368 |
| $37\times31=1147$ | $37+1=38\times3=114$ annex $0=1140$<br>$7\times1=7$ | 1147 |
| $38\times34=1292$ | $38+4=42\times3=126$ annex $0=1260$<br>$8\times4=32$ | 1292 |
| $39\times37=1443$ | $39+7=46\times3=138$ annex $0=1380$<br>$9\times7=63$ | 1443 |

# TABLE III.

From 30 times 30 to 39 times 39.

| | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 900 | 930 | 960 | 990 | 1020 | 1050 | 1080 | 1110 | 1140 | 1170 |
| 31 | 930 | 961 | 992 | 1023 | 1054 | 1085 | 1116 | 1147 | 1178 | 1209 |
| 32 | 960 | 992 | 1024 | 1056 | 1088 | 1120 | 1152 | 1184 | 1216 | 1248 |
| 33 | 990 | 1023 | 1056 | 1089 | 1122 | 1155 | 1188 | 1221 | 1254 | 1287 |
| 34 | 1020 | 1054 | 1088 | 1122 | 1156 | 1190 | 1224 | 1258 | 1292 | 1326 |
| 35 | 1050 | 1085 | 1120 | 1155 | 1190 | 1225 | 1260 | 1295 | 1330 | 1365 |
| 36 | 1080 | 1116 | 1152 | 1188 | 1224 | 1260 | 1296 | 1332 | 1368 | 1404 |
| 37 | 1110 | 1147 | 1184 | 1221 | 1258 | 1295 | 1332 | 1369 | 1406 | 1443 |
| 38 | 1140 | 1178 | 1216 | 1254 | 1292 | 1330 | 1368 | 1406 | 1444 | 1482 |
| 39 | 1170 | 1209 | 1248 | 1287 | 1326 | 1365 | 1404 | 1443 | 1482 | 1521 |

## EXPLANATION OF TABLE IV.

In this Table, after the whole of the first figures and the last of the second are added together, their sum must be multiplied by 4, and then the cipher must be annexed; and the same method must be pursued as directed in the preceding Tables.

EXAMPLE. 48×42=2016. Operation, 48+2=50, multiply 50×4=200, annex a cipher=2000, then multiply the last two figures of 48 and 42, viz. 8 and 2 together=16, which, added to 2000, make 2016.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| 41×49=2009 | 41+9=50×4=200 annex 0=2000<br>1×9= 9 | 2009 |
| 42×46=1932 | 42+6=48×4=192 annex 0=1920<br>2×6= 12 | 1932 |
| 43×42=1806 | 43+2=45×4=180 annex 0=1800<br>3×2= 6 | 1806 |
| 44×45=1980 | 44+5=49×4=196 annex 0=1960<br>4×5= 20 | 1980 |
| 45×43=1935 | 45+3=48×4=192 annex 0=1920<br>5×3= 15 | 1935 |
| 46×44=2024 | 46+4=50×4=200 annex 0=2000<br>6×4= 24 | 2024 |
| 47×41=1927 | 47+1=48×4=192 annex 0=1920<br>7×1= 7 | 1927 |
| 48×47=2256 | 48+7=57×4=220 annex 0=2200<br>8×7= 56 | 2256 |
| 49×48=2352 | 49+8=57×4=228 annex 0=2280<br>9×8= 72 | 2352 |

# TABLE IV.

## From 40 times 40 to 49 times 49.

| | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 1600 | 1640 | 1680 | 1720 | 1760 | 1800 | 1840 | 1880 | 1920 | 1960 |
| 41 | 1640 | 1681 | 1722 | 1763 | 1804 | 1845 | 1886 | 1927 | 1968 | 2009 |
| 42 | 1680 | 1722 | 1764 | 1806 | 1848 | 1890 | 1932 | 1974 | 2016 | 2058 |
| 43 | 1720 | 1763 | 1806 | 1849 | 1892 | 1935 | 1978 | 2021 | 2064 | 2107 |
| 44 | 1760 | 1804 | 1848 | 1892 | 1936 | 1980 | 2024 | 2070 | 2112 | 2156 |
| 45 | 1800 | 1845 | 1890 | 1935 | 1980 | 2024 | 2068 | 2115 | 2160 | 2205 |
| 46 | 1840 | 1886 | 1932 | 1978 | 2025 | 2068 | 2116 | 2162 | 2208 | 2254 |
| 47 | 1880 | 1927 | 1974 | 2021 | 2070 | 2115 | 2162 | 2209 | 2256 | 2303 |
| 48 | 1920 | 1968 | 2016 | 2064 | 2112 | 2160 | 2208 | 2256 | 2304 | 2352 |
| 49 | 1960 | 2009 | 2058 | 2107 | 2156 | 2205 | 2254 | 2303 | 2352 | 2401 |

## EXPLANATION OF TABLE V.

In this Table, after the whole of the first figures and the last of the second are added, the sum must be multiplied by 5, and the learner must proceed as before.

EXAMPLE. $59 \times 51 = 3009$. Operation, $59+1=60$, which, multiplied by 5 are 300, annex $0=3000$; then multiply the two last figures of 59 and 51, viz. 9 and 1, which, add to 3000, and the answer 3009 is obtained.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| $51 \times 53 = 2958$ | $51+8=59 \times 5=295$ annex $0=2950$<br>$1 \times 8=$ 8 | 2958 |
| $52 \times 59 = 3068$ | $52+9=61 \times 5=305$ annex $0=3050$<br>$2 \times 9=$ 18 | 3068 |
| $53 \times 57 = 3021$ | $53+7=60 \times 5=300$ annex $0=3000$<br>$3 \times 7=$ 21 | 3021 |
| $54 \times 56 = 3024$ | $54+6=60 \times 5=300$ annex $0=3000$<br>$4 \times 6=$ 24 | 3024 |
| $55 \times 55 = 3025$ | $55+5=60 \times 5=300$ annex $0=3000$<br>$5 \times 5=$ 25 | 3025 |
| $56 \times 51 = 2856$ | $56+1=57 \times 5=285$ annex $0=2850$<br>$6 \times 1=$ 6 | 2856 |
| $57 \times 52 = 2964$ | $57+2=59 \times 5=295$ annex $0=2950$<br>$7 \times 2=$ 14 | 2964 |
| $58 \times 54 = 3132$ | $58+4=62 \times 5=310$ annex $0=3100$<br>$8 \times 4=$ 32 | 3132 |
| $59 \times 53 = 3127$ | $59+3=62 \times 5=310$ annex $0=3100$<br>$9 \times 3=$ 27 | 3127 |

# TABLE V.

## From 50 times 50 to 59 times 59.

| | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 |
|---|---|---|---|---|---|---|---|---|---|---|
| 50 | 2500 | 2550 | 2600 | 2650 | 2700 | 2750 | 2800 | 2850 | 2900 | 2950 |
| 51 | 2550 | 2601 | 2652 | 2703 | 2754 | 2805 | 2856 | 2907 | 2958 | 3009 |
| 52 | 2600 | 2652 | 2704 | 2756 | 2808 | 2860 | 2912 | 2964 | 3016 | 3068 |
| 53 | 2650 | 2703 | 2756 | 2809 | 2862 | 2915 | 2968 | 3021 | 3074 | 3127 |
| 54 | 2700 | 2754 | 2808 | 2862 | 2916 | 2970 | 3024 | 3078 | 3132 | 3186 |
| 55 | 2750 | 2805 | 2860 | 2915 | 2970 | 3025 | 3080 | 3135 | 3190 | 3245 |
| 56 | 2800 | 2856 | 2912 | 2968 | 3024 | 3080 | 3136 | 3192 | 3248 | 3304 |
| 57 | 2850 | 2907 | 2964 | 3021 | 3078 | 3135 | 3192 | 3249 | 3306 | 3363 |
| 58 | 2900 | 2958 | 3016 | 3074 | 3132 | 3190 | 3248 | 3306 | 3364 | 3422 |
| 59 | 2950 | 3009 | 3068 | 3127 | 3186 | 3245 | 3304 | 3363 | 3422 | 3481 |

## EXPLANATION OF TABLE VI.

In this Table, the multiplier 6 must be used, instead of 5, as in the preceding Table.

EXAMPLE. $68\times62=4216$. Operation, $68+2=70$, then $70\times6=420$, annex $0=4200$, then $8\times2=16$, which, added to $4200=4216$, the answer.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| $61\times67=4087$ | $61+7=68\times6=408$ annex $0=4080$<br>$1\times7=7$ | 4087 |
| $62\times69=4278$ | $62+9=71\times6=426$ annex $0=4260$<br>$2\times9=18$ | 4278 |
| $63\times68=4284$ | $63+8=71\times6=426$ annex $0=4260$<br>$3\times8=24$ | 4284 |
| $64\times66=4224$ | $64+6=70\times6=420$ annex $0=4200$<br>$4\times6=24$ | 4224 |
| $65\times65=4225$ | $65+5=70\times6=420$ annex $0=4200$<br>$5\times5=25$ | 4225 |
| $66\times61=4026$ | $66+1=67\times6=402$ annex $0=4020$<br>$6\times1=6$ | 4026 |
| $67\times63=4221$ | $67+3=70\times6=420$ annex $0=4200$<br>$7\times3=21$ | 4221 |
| $68\times64=4352$ | $68+4=72\times6=432$ annex $0=4320$<br>$8\times4=32$ | 4352 |
| $69\times62=4278$ | $69+2=71\times6=426$ annex $0=4260$<br>$9\times2=18$ | 4278 |

# TABLE VI.

## From 60 times 60 to 69 times 69.

| | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 |
|---|---|---|---|---|---|---|---|---|---|---|
| 60 | 3600 | 3660 | 3720 | 3780 | 3840 | 3900 | 3960 | 4020 | 4080 | 4140 |
| 61 | 3660 | 3721 | 3782 | 3843 | 3904 | 3965 | 4026 | 4087 | 4148 | 4209 |
| 62 | 3720 | 3782 | 3844 | 3906 | 3968 | 4030 | 4092 | 4154 | 4216 | 4278 |
| 63 | 3780 | 3843 | 3906 | 3969 | 4032 | 4095 | 4158 | 4221 | 4284 | 4347 |
| 64 | 3840 | 3904 | 3968 | 4032 | 4096 | 4160 | 4224 | 4288 | 4352 | 4416 |
| 65 | 3900 | 3965 | 4030 | 4095 | 4160 | 4225 | 4290 | 4355 | 4420 | 4485 |
| 66 | 3960 | 4026 | 4092 | 4158 | 4224 | 4290 | 4356 | 4422 | 4488 | 4554 |
| 67 | 4020 | 4087 | 4154 | 4221 | 4288 | 4355 | 4422 | 4489 | 4556 | 4623 |
| 68 | 4080 | 4148 | 4216 | 4284 | 4352 | 4420 | 4488 | 4556 | 4624 | 4692 |
| 69 | 4140 | 4209 | 4278 | 4347 | 4416 | 4485 | 4554 | 4623 | 4692 | 4761 |

## EXPLANATION OF TABLE VII.

In this Table, 7 must be used as the multiplier, instead of 6, as in the former Table.

EXAMPLE. $78\times72=5616$. Operation, $78+2=80\times7=560$, to which annex $0=5600$; then multiply $8\times2=16$, which, added to 5600, produces 5616.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| $71\times77=5467$ | $71+7=78\times7=546$ annex $0=5460$<br>$1\times7=7$ | 5467 |
| $72\times79=5688$ | $72+9=81\times7=567$ annex $0=5670$<br>$2\times9=18$ | 5688 |
| $73\times78=5694$ | $73+8=81\times7=567$ annex $0=5670$<br>$3\times8=24$ | 5694 |
| $74\times76=5624$ | $74+6=80\times7=560$ annex $0=5600$<br>$4\times6=24$ | 5624 |
| $75\times75=5625$ | $75+5=80\times7=560$ annex $0=5600$<br>$5\times5=25$ | 5625 |
| $76\times71=5396$ | $76+1=77\times7=539$ annex $0=5390$<br>$6\times1=6$ | 5396 |
| $77\times73=5621$ | $77+3=80\times7=560$ annex $0=5600$<br>$7\times3=21$ | 5621 |
| $78\times74=5772$ | $78+4=82\times7=574$ annex $0=5740$<br>$8\times4=32$ | 5772 |
| $79\times72=5688$ | $79+2=81\times7=567$ annex $0=5670$<br>$9\times2=18$ | 5688 |

# TABLE VII.

## From 70 times 70 to 79 times 79.

| | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 |
|---|---|---|---|---|---|---|---|---|---|---|
| 70 | 4900 | 4970 | 5040 | 5110 | 5180 | 5250 | 5320 | 5390 | 5460 | 5530 |
| 71 | 4970 | 5041 | 5112 | 5183 | 5254 | 5325 | 5396 | 5467 | 5538 | 5609 |
| 72 | 5020 | 5112 | 5184 | 5256 | 5328 | 5400 | 5472 | 5544 | 5616 | 5688 |
| 73 | 5110 | 5183 | 5256 | 5329 | 5402 | 5475 | 5548 | 5621 | 5694 | 5767 |
| 74 | 5180 | 5254 | 5328 | 5402 | 5476 | 5550 | 5624 | 5698 | 5772 | 5846 |
| 75 | 5250 | 5325 | 5400 | 5475 | 5550 | 5625 | 5700 | 5775 | 5850 | 5925 |
| 76 | 5320 | 5396 | 5472 | 5548 | 5624 | 5700 | 5776 | 5852 | 5928 | 6004 |
| 77 | 5390 | 5467 | 5544 | 5621 | 5698 | 5775 | 5852 | 5929 | 6006 | 6083 |
| 78 | 5460 | 5538 | 5616 | 5694 | 5775 | 5850 | 5928 | 6006 | 6084 | 6162 |
| 79 | 5530 | 5609 | 5688 | 5767 | 5846 | 5925 | 6004 | 6083 | 6162 | 6241 |

## EXPLANATION OF TABLE VIII.

In this Table, the multiplier 8 must be used.

EXAMPLE. 88×82=7216. Operation, 88+2=90, which, multiplied by 8 gives 720, annex a cipher to 720 and it produces 7200, then add to this last number 8×2=16, and it gives 7216, the answer.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| 81×87=7047 | 81+7=88×8=704 annex 0=7040<br>1×7= 7 | 7047 |
| 82×89=7298 | 82+9=91×8=728 annex 0=7280<br>2×9= 18 | 7298 |
| 83×88=7304 | 83+8=91×8=728 annex 0=7280<br>3×8= 24 | 7304 |
| 84×86=7224 | 84+6=90×8=720 annex 0=7200<br>4×6= 24 | 7224 |
| 85×85=7225 | 85+5=90×8=720 annex 0=7200<br>5×5= 25 | 7225 |
| 86×81=6966 | 86+1=87×8=696 annex 0=6960<br>6×1= 6 | 6966 |
| 87×83=7221 | 87+3=90×8=720 annex 0=7200<br>7×3= 21 | 7221 |
| 88×84=7392 | 88+4=92×8=736 annex 0=7360<br>8×4= 32 | 7392 |
| 89×82=7298 | 89+2=91×8=728 annex 0=7280<br>9×2= 18 | 7298 |

# TABLE VIII.

From 80 times 80 to 89 times 89.

| | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 |
|---|---|---|---|---|---|---|---|---|---|---|
| 80 | 6400 | 6480 | 6560 | 6640 | 6720 | 6800 | 6880 | 6960 | 7040 | 7120 |
| 81 | 6480 | 6561 | 6642 | 6723 | 6804 | 6885 | 6966 | 7047 | 7128 | 7209 |
| 82 | 6560 | 6642 | 6724 | 6806 | 6888 | 6970 | 7052 | 7134 | 7216 | 7298 |
| 83 | 6640 | 6723 | 6806 | 6889 | 6972 | 7055 | 7138 | 7221 | 7304 | 7387 |
| 84 | 6720 | 6804 | 6888 | 6972 | 7056 | 7140 | 7224 | 7308 | 7392 | 7476 |
| 85 | 6800 | 6885 | 6970 | 7055 | 7140 | 7225 | 7310 | 7395 | 7480 | 7565 |
| 86 | 6880 | 6966 | 7052 | 7138 | 7224 | 7310 | 7396 | 7482 | 7568 | 7654 |
| 87 | 6960 | 7047 | 7134 | 7221 | 7308 | 7395 | 7482 | 7569 | 7656 | 7743 |
| 88 | 7040 | 7128 | 7216 | 7304 | 7392 | 7480 | 7568 | 7656 | 7744 | 7832 |
| 89 | 7120 | 7209 | 7298 | 7387 | 7476 | 7565 | 7654 | 7743 | 7832 | 7921 |

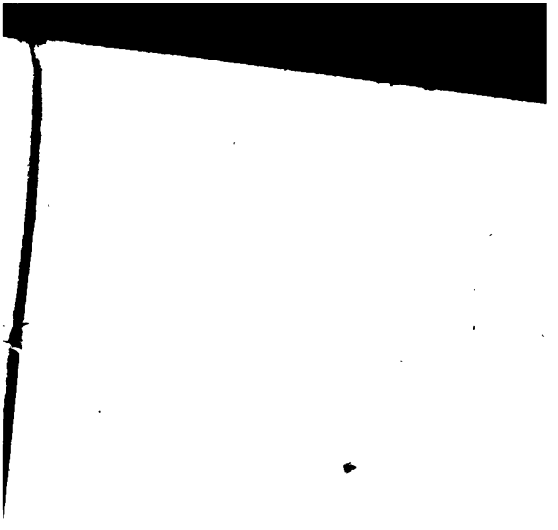
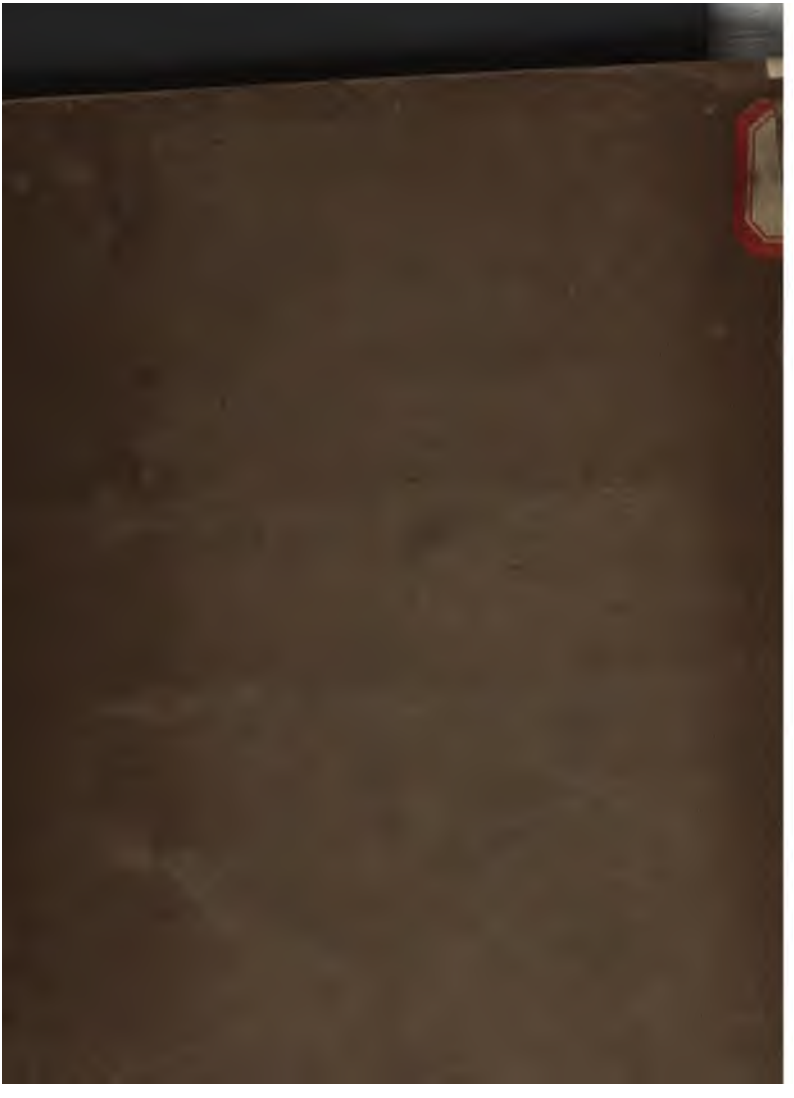
## EXPLANATION OF TABLE IX.

The multiplier 9 must be used in this Table.

EXAMPLE. 96×94=9024. Operation, 96+4=100, which, multiplied by 9 are 900, annex 0=9000, then add the last number 6×4=24, which makes 9024.

| FROM THE TABLE. | OPERATION. | ANSWER. |
|---|---|---|
| 91×98=8918 | 91+8=99×9=891 annex 0=8910<br>1×8= 8 | 8918 |
| 92×97=8924 | 92+7=99×9=891 annex 0=8910<br>2×7= 14 | 8924 |
| 93×98=9114 | 93+8=101×9=909 annex 0=9090<br>3×8= 24 | 9114 |
| 94×96=9024 | 94+6=100×9=900 annex 0=9000<br>4×6= 24 | 9024 |
| 95×85=9025 | 95+5=100×9=900 annex 0=9000<br>5×5= 25 | 9025 |
| 96×91=8736 | 96+1=97×9=873 annex 0=8730<br>6×1= 6 | 8736 |
| 97×93=9021 | 97+3=100×9=900 annex 0=9000<br>7×3= 21 | 9021 |
| 98×94=9212 | 98+4=102×9=918 annex 0=9180<br>8×4= 32 | 9212 |
| 99×92=9108 | 99+2=101×9=909 annex 0=9090<br>9×2= 18 | 9108 |

# TABLE IX.

## From 90 times 90 to 99 times 99.

| | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 |
|---|---|---|---|---|---|---|---|---|---|---|
| 90 | 8100 | 8190 | 8280 | 8370 | 8460 | 8550 | 8640 | 8730 | 8820 | 8910 |
| 91 | 8190 | 8281 | 8372 | 8463 | 8554 | 8645 | 8736 | 8827 | 8918 | 9009 |
| 92 | 8280 | 8372 | 8464 | 8556 | 8648 | 8740 | 8832 | 8924 | 9016 | 9108 |
| 93 | 8370 | 8463 | 8556 | 8649 | 8742 | 8835 | 8928 | 9021 | 9114 | 9207 |
| 94 | 8460 | 8554 | 8648 | 8742 | 8836 | 8930 | 9024 | 9118 | 9212 | 9306 |
| 95 | 8550 | 8645 | 8740 | 8835 | 8930 | 9025 | 9120 | 9215 | 9310 | 9405 |
| 96 | 8640 | 8736 | 8832 | 8928 | 9024 | 9120 | 9216 | 9312 | 9408 | 9504 |
| 97 | 8730 | 8827 | 8924 | 9021 | 9118 | 9215 | 9312 | 9409 | 9506 | 9603 |
| 98 | 8820 | 8918 | 9016 | 9114 | 9212 | 9310 | 9408 | 9506 | 9604 | 9702 |
| 99 | 8910 | 9009 | 9108 | 9207 | 9306 | 9405 | 9504 | 9603 | 9702 | 9801 |